

#### ABSTRACT

It is to propose a method of producing super-micro powders of pure metal-alloy in which cheap materials can be used and the production is efficient. In the production method of pure metal super-micro powder by heating a starting material containing a metal chloride and reducing the resulting vapor of the metal chloride with hydrogen gas, an elementary metal constituting the metal chloride is added to the starting material containing the metal chloride and a metal chloride having a large valence among metal chlorides having two or more valence is used as the metal chloride. Also, in the production method of alloy super-micro powder, a metal chloride is used as one to (number of all alloying components - 1) alloying components in the starting material and an elemental metal is used as the other alloying component.